

Patent Claims

1 1. An apparatus for producing packs (10) with a blank (11) wrapping an
2 article which is to be packaged, in particular a cuboidal cigarette pack with an
3 outer wrapper made of film, it being possible for the blank (11) to be folded around
4 the article and for peripheral folding tabs (27, 28) to be folded into a transversely
5 directed position by a fixed-location, movable folding element, characterized in
6 that the folding element can be moved relative to the article while carrying along
7 part of the blank (11) in the direction of a free periphery or of the peripheral folding
8 tab (27), with the blank (11) being pressed against a surface or wall of the article.

1 2. The apparatus as claimed in Claim 1, characterized in that the
2 folding element, which moves in rotation, can be rolled along the surface of the
3 article or of the pack (10), with the blank (11) being pressed against the same and
4 tensioned in the process.

1 3. The apparatus as claimed in Claim 2, characterized in that the
2 folding element is designed as a rotating folding roller (34) which, with linear or
3 strip-like abutment against the surface of the article or of the pack (10), smoothes
4 and tensions the blank (11) during a continuous rolling movement and presses it
5 against the article or against the surface of a pack (10).

1 4. The apparatus as claimed in Claim 3, characterized in that the
2 folding roller (34) is mounted at a fixed location and the articles or packs (10) with
3 blank (11) can be moved past the folding roller (38), in particular by a continuously
4 rotating folding turret (13), the conveying direction of the articles or packs (10) and
5 the direction of rotation of the folding roller (34) coinciding in the region where
6 they butt against one another.

1 5. The apparatus as claimed in Claim 3, characterized in that the
2 folding roller (34) has a plurality of lateral portions (35) which follow one after the
3 other along the circumference, each for executing a folding and rolling cycle on an
4 article or on a pack (10), each lateral portion (35) having a sub-portion of which
5 the curved surface, which rolls by way of a radial convexity (49), butts against the

6 article or the pack (10) over the entire width of the same.

1 6. The apparatus as claimed in Claim 3, characterized in that the
2 folding element, namely the folding roller (34), has additional folding tools, in
3 particular radially directed crosspieces (36) which each adjoin a lateral portion
4 (35) and cause a facing folding tab - inner tab (27) - to be folded over on to a
5 transversely or radially directed side wall (22) of the pack (10) or of a folding
6 mandrel (17), the folding crosspieces (36) each adjoining a rolling region of the
7 folding roller (34) or of the lateral portion (35) with an arcuate contour, a rounded
8 chamfer (37) being formed in the process.

1 7. The apparatus as claimed in Claim 6, characterized in that the
2 folding crosspieces (36) of the folding roller (34) interact with folding elements
3 which are fitted radially on the inside of the folding turret (13), namely folding
4 levers (38) which have a supporting leg (40) for folding a radially inner outer tab
5 (28), the folding movements of the folding levers (38) and of the folding
6 crosspieces (36) being coordinated with one another such that the folding
7 crosspiece (36) is moved out of the region of action of the supporting lug (40)
8 when the latter, for the purpose of completing a flexible-tube fold of the inner tab
9 (27) and outer tab (28), overlaps the two tabs (27, 28).

1 8. An apparatus for producing packs (10) with a blank (11) wrapping a
2 cuboidal cigarette pack with an outer wrapper made of film, in which the blank
3 (11) is folded around the pack and peripheral folding tabs (27, 28) are folded into
4 a transversely directed position by a fixed-location, movable folding element,
5 characterized in that the folding element is moved relative to the article while
6 carrying along part of the blank (11) in the direction of a free periphery or of the
7 peripheral folding tab (27), with the blank (11) being pressed against a surface of
8 the pack (10).

1 9. The apparatus as claimed in Claim 8, characterized in that the
2 folding element, which moves in rotation, is rolled along the surface of the pack
3 (10), with the blank (11) being pressed against the same and tensioned in the
4 process.

1 10. The apparatus as claimed in Claim 9, characterized in that the
2 folding element is designed as a rotating folding roller (34) with linear or strip-like
3 abutment that contacts the surface of the pack (10) so as to smooth and tension
4 the blank (11) during a continuous rolling movement and press the blank (11)
5 against the surface of the pack (10).

1 11. The apparatus as claimed in Claim 10, characterized in that the
2 folding roller (34) is mounted at a fixed location and the packs (10) with blank (11)
3 can be moved past the folding roller (38) by a continuously rotating folding turret
4 (13), the conveying direction of the packs (10) and the direction of rotation of the
5 folding roller (34) coinciding in the region where they butt against one another.

1 12. The apparatus as claimed in Claim 10, characterized in that the
2 folding roller (34) has a plurality of lateral portions (35) which follow one after the
3 other along the circumference, each for executing a folding and rolling cycle on
4 the pack (10), each lateral portion (35) having a sub-portion of which the curved
5 surface, which rolls by way of a radial convexity (49), butts against the pack (10)
6 over the entire width of the same.

1 13. The apparatus as claimed in Claim 10, characterized in that folding
2 roller (34) has additional folding tools in the form of radially directed crosspieces
3 (36) which each adjoin a lateral portion (35) and cause folding tab (27) to be
4 folded over on to a transversely or radially directed side wall (22) of the pack (10)
5 or of a folding mandrel (17), the folding crosspieces (36) each adjoining a rolling
6 region of the folding roller (34) or of the lateral portion (35) with an arcuate
7 contour, so as to form a rounded chamfer (37).

1 14. The apparatus as claimed in Claim 13, characterized in that the
2 folding crosspieces (36) of the folding roller (34) interact with folding levers (38)
3 which are fitted radially on the inside of the folding turret (13), wherein folding
4 levers (38) have a supporting leg (40) for folding a radially inner outer tab (28), the
5 folding movements of the folding levers (38) and of the folding crosspieces (36)
6 being coordinated with one another such that the folding crosspiece (36) is moved
7 out of the region of action of the supporting lug (40) when the latter, for the

- 8 purpose of completing a flexible-tube fold of the inner tab (27) and outer tab (28),
- 9 overlaps the two tabs (27, 28).